

COMMENT ON A UNIQUE TORNADO REPORT

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In recent years, the Atomic Energy Commission (AEC) has been evaluating plans for plants that are to use atomic energy in their processes. Contractors feel competent in designing a building strong enough to withstand damage from a tornado strike but had difficulty in satisfying the commission's question of possible exposure or dispersal of contaminated material by a tornado funnel or vortex cloud passing directly over a spent fuel pit. Such a pit is roughly described as a manmade well in which sealed containers of spent fuel are stored under water until further disposition is made.

The only reference found to a tornado passing over a well was the book by Flora (1953). The tornado was reported to have been listed by J. P. Finley as striking Marshall, Mo., on Apr. 18, 1880. The report told of much other damage and included a description of a well sucked dry. This report from Flora's book was of considerable concern to the AEC even though several men well versed in the field of meteorology are on record in commission hearings as considering this to be very unlikely if not impossible. One of these consultants was Van Thullenar (1968), a retired Weather Bureau meteorologist and a long-time worker in the field of severe storms.

Study of the locally available copies of Finley's reports on tornadoes failed to produce a record of any tornado near Marshall, Mo., on Apr. 18, 1880. However, a tornado was listed for Marshfield, Mo., on that date. No details were mentioned other than the time, date, and location of the storm.

Dr. J. McQuigg, NOAA Climatologist for Missouri, and Dr. G. Darkow of the University of Missouri have been interested in Missouri tornadoes. They were contacted on the possibility of obtaining more information on that particular storm. Darkow (1968) located a reference in the

newspaper files of the Missouri Historical Society to "a Professor J. H. Tice, St. Louis weather prognosticator of that city, journeying to Marshfield, Mo. (near Springfield), to investigate storm damage." There was no mention of any storm near Marshall, Mo.; this convinced me that the towns had been inadvertently confused. Further investigation by Darkow produced an article in the *Springfield Patriot Advertiser*, a weekly newspaper dated Apr. 29, 1880. It referred to previous releases in area newspapers and used the so-called editorial license in which the editor included his views, prominently, in a front page article. It said, ". . . and right here we may remark that many people have drawn largely upon their imaginations . . . the story of a child blown away and found hanging next morning in the tree; of cattle taken up and carried a long distance and deposited without serious injury; of wells sucked dry . . . are pure fiction." The paper went on to state that Prof. Tice had not been in Springfield and "we take no stock in him as a prognosticator or weather prophet."

This investigation suggests how a chain of hasty readings and tendencies to exaggerate can lead ultimately to unfortunate misstatements in otherwise authoritative publications. Tornadoes impose serious design problems even when their effects are not exaggerated.

REFERENCES

- Darkow, Grant, University of Missouri, Columbia, 1968 (personal correspondence).
 Flora, Snowden D., *Tornadoes of the United States*, University of Oklahoma Press, Norman, 1953, 194 pp. (see p. 17; 1954 revised edition, p. 18).
 Van Thullenar, C. F., U.S. Weather Bureau, Kansas City, Mo., 1968 (personal communication).

[Received September 10, 1970; revised November 23, 1970]